

WE CLAIM:

1. A method of preventing or reducing neurological events in a subject comprising administering a therapeutically effective dosage of a glycosaminoglycan and a serpin to the subject to prevent or reduce the neurological events.
2. A method of claim 1 wherein the neurological event is associated with emboli.
3. A method of any preceding claim wherein the emboli are thromboemboli.
4. A method of any preceding claim wherein the serpin is antithrombin III.
5. A method of claim 4 wherein the antithrombin III is transgenic antithrombin III.
6. A method of any preceding claim wherein the glycosylaminoglycan is heparin or low molecular weight heparin.
7. A method of any preceding claim wherein the glycosylaminoglycan and serpin form a complex or conjugate.
8. A method of claim 7 wherein the complex or conjugate comprises antithrombin III covalently linked to heparin.
9. A method of claim 8 wherein the complex or conjugate comprises ATH.
10. A method of any preceding claim wherein the glycosaminoglycan and the serpin are administered prior to, during, or after a procedure that may give rise to a neurological event.
11. A method of claim 10 wherein the procedure affects the central nervous system.
12. A method of claim 11 wherein the procedure affects the brain and/or cerebral circulation.
13. A method of claim 10 wherein the procedure is a surgical procedure.
14. A method of claim 13 wherein the procedure is cardiopulmonary bypass, cardiac catheterization, angioplasty, or endarterectomy.
15. A method as claimed in claim 2 comprising reducing emboli in the cerebral circulation in a subject comprising administering an amount of a glycosaminoglycan and a serpin effective to reduce the emboli.
16. A method of any preceding claim for protecting a subject against cerebral embolization comprising administering an amount of a glycosaminoglycan and a serpin that reduces the amount of emboli that reach the cerebral vasculature.
17. A method of performing cardiac surgery comprising administering a therapeutically effective amount of a glycosaminoglycan and a serpin peri-operatively to a subject undergoing cardiopulmonary bypass to prevent or reduce the effects of emboli.
18. A method of claim 2 comprising preventing or reducing emboli from a bypassed heart region prior to removal of the region from bypass by administering an amount of a glycosaminoglycan and a serpin effective to prevent or reduce the emboli.
19. A method of using a glycosaminoglycan and a serpin in the preparation of a medicament for the

- 27 -

prevention or inhibition of cerebral embolization.

20. A method of using synergistically effective amounts of a glycosaminoglycan and a serpin in the preparation of a pharmaceutical composition for preventing or reducing neurological events.
21. A method of any of claims 17 to 20 wherein the glycosylaminoglycan and serpin form a complex or conjugate.
- 5 22. A method of claim 21 wherein the complex or conjugate comprises antithrombin III covalently linked to heparin.
23. A method of claim 21 wherein the complex or conjugate comprises ATH.
24. A pharmaceutical composition comprising a combination of a glycosaminoglycan and a serpin effective to exert a synergistic effect in preventing or reducing neurological events.
- 10 25. A pharmaceutical composition comprising a combination of a heparin or low molecular weight heparin and antithrombin III effective to in preventing or reducing neurological events.